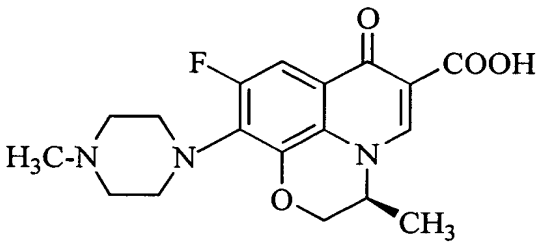
ABSTRACT

Name of the title: Novel anhydrous crystalline form of Levofloxacin and process for Preparation thereof.

The present invention is directed to novel anhydrous crystalline form of Levofloxacin is depicted as Formula (I), further more its process for preparation thereof. The process for the preparation of novel anhydrous crystalline form of Levofloxacin comprises the condensation of N-Methyl piperazine with S (-)-9,10-difluoro-7-oxo 2,3-dihydro 7H-pyrido [1,2,3-DE] [1,4] Benzoxazine-6-carboxylic acid in Acetonitrile followed by distillation of solvent to afford the residue, the resultant residue is refluxed with toluene and the solid is filtered at room temperature to afford the Levofloxacin. Thus resulted Levofloxacin is further refluxed in Acetonitrile and filtered the Novel anhydrous crystalline form of Levofloxacin as undissolved material. The anhydrous crystalline form of Levofloxacin is characterized by X-ray diffractogram, Differential Scanning Calorimetry thermogram and Infrared Spectra.



Formula (I)